

**Working Waterfronts in Michigan:
Metrics, Tools and Planning for Competing Uses in the New Economy**

A Proposal for NOAA Coastal Management Fellowship 2010


Submitted to:

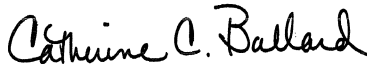
Margaret VanderWilt , Fellowship Coordinator
NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, SC 29405
csc.fellowships@noaa.gov

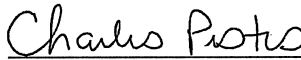
Submitted by:

Carol Linteau, Executive Division
and Catherine Cunningham Ballard, Michigan Coastal Management Program
Michigan Department of Environmental Quality
PO Box 30473
Lansing , MI 48909-7973

Supporting Organization
Michigan Sea Grant College Program
c/o Charles Pistis, Program Leader, MSU-West
940 Monroe NW, Suite 140
Grand Rapids, MI 49503


Carol Linteau, Executive Office
Michigan Department of Environmental Quality
517.241.7396; linteauC@michigan.gov


Catherine Cunningham Ballard, Chief
Michigan Coastal Management Program
517.335.3456; CUNNINGHAMC1@michigan.gov


Charles Pistis, Program Leader
Michigan Sea Grant Extension
616.458.6805; pistis@msu.edu

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Michigan Coastal Working Waterfront Access Analyst
NOAA Coastal Management Fellowship 2010

The Michigan Department of Environmental Quality and Michigan Coastal Management Program, in partnership with the Michigan Sea Grant College Program, is pleased to present this proposal to the NOAA Coastal Services Center Coastal Management Fellowship Program. This proposal directly addresses the **competing uses** strategic focus area and is designed to provide a Coastal Management Fellow an excellent opportunity to apply his/her education to a critical, identified coastal management need in the state of Michigan within a desirable mentoring setting.

Background and Introduction:

The State of Michigan is blessed with well over 3200 miles of Great Lakes shoreline resources which touch four of the five Great Lakes and three of the five Great Lakes connecting channels. Numerous coastal communities dot the shoreline from the warmer, southeast along Lake Erie to the cold, far western end of the Upper Peninsula along Lake Superior. Michigan has over 900,000 registered boats (3rd in the nation), commercial deep water harbors, numerous shallow water harbors and harbors of refuge, and many thriving coastal tourist communities. In today's changing economy, where Michigan as a whole is moving away from a significant manufacturing base, these coastal communities are faced with competing choices along their waterfronts. For example, what uses will be permitted on waterfront land and how will public access to the public waters of the Great Lakes will be promoted or allowed by coastal municipalities?

Perhaps more challenging to Michigan's coastal communities is the need to sustain and enhance a distinct, attractive community with a strong sense of place that capitalizes on the community's waterfront's heritage.¹ In many ways, coastal communities have a competitive advantage as a component of the emerging vision for Michigan's economy but if careful planning and vision is not implemented, permanent loss of waterfront community character will occur. Non-quantitative observation indicates demand for non-water dependent uses (such as housing and hotel development) increasing due to the attractiveness of coastal aesthetics and values, communities face constant competing choices and need to think about water access and protecting future options as they are faced with proposals from private and other investors and developers.

As perhaps in other coastal states, there is a seeming a gradual erosion of working waterfronts in Michigan coastal communities. Working waterfronts allow access to public trust waters for commerce and recreation, combining the busy landscape of water-dependent businesses -- ranging from commercial fishermen, to charter boat operations and marinas -- with public access points, and a variety of services. Communities with true working waterfronts are often thriving places that host both commerce and public access -- visual and physical. A vital working waterfront is the heart of Michigan's port

¹ Smart Growth for Coastal and Waterfront Communities, September 2009 (NOAA, EPA, ICMA, Sea Grant Rhode Island).

cities and waterfront communities. Quantifying this apparent downward trend in working waterfronts has never been completed in our Great Lakes state.

Despite disparate state geography and economy, Michigan's coastal communities have begun to come together on common waterfront issues, such as dredging. A fledgling organization, the Michigan Port Collaborative, provides a forum for discussion on trends and opportunities in Great Lakes port communities and is beginning to showcase effective regional port partnerships in Michigan.

The Michigan DEQ Executive Office, the Michigan Coastal Management Program and Michigan Sea Grant have facilitated, along with other partners, the Michigan Port Collaborative efforts. Michigan Sea Grant also houses team members in various coastal communities across the state while the Michigan Coastal Management Program team has been a key strategic and funding partner on many local initiatives on waterfronts. Together these programs have identified the apparent trend of conversion of working waterfronts to non-coastal dependent uses as the key coastal resource management issue currently faced in Michigan. This joint application for a NOAA Coastal Management Fellowship is designed to address several elements identified by these programs and to provide important education and experience for a Coastal Management Fellow.

Project Description:

The partners proposing this project have noted, anecdotally, that governments (local and state) as well as private interests have conceded access points to non water-dependent uses and restricted the property to private interests. However, there is currently no methodology that enables Michigan coastal managers to understand rate of conversion, locations that are experiencing the most significant conversion rates and, as a result, makes it very challenging to develop a policy response to the issue.

The project consists of three components: 1) development and application of a method to determine the conversion rate of Michigan's working waterfronts; 2) identification and distribution of a suite of policy and economic tools to address working waterfront issues; 3) apply the coastal Smart Growth Readiness Assessment Tool to 10-20 Michigan communities; and 4) conduct a census of Michigan's coastal dependent business.

1) Coastal Conversion Status and Trends

This component of the project will consist of the development of a peer-reviewed methodology for accessing coastal land use conversion rates and application of the methods to determine both a baseline and conversion rate for the state of Michigan. The fellow will be charged with 1) identifying, synthesizing and applying existing literature related to coastal land use conversion to Michigan's unique attributes; 2) identifying existing tools and inventories, e.g., the Great Lakes GIS (a mega data-based of GIS layers relevant to coastal land uses), the Coastal Change Analysis Program (C-CAP), that can be applied to this issue; 3) identifying key individuals and organizations to ground-truth methods and data. If possible the methodology developed will need to be applicable

through time, that is, a process that enables the fellow to determine both current status of Michigan's working waterfronts and trends in conversion rates. This will be especially helpful in identifying conversion "hot spots." Both the Michigan Coastal Management Program and Michigan Sea Grant have strong relationships with experts within Michigan and around the country, who are working on these issues.

2) Identification of Policy and Economic Tool Kit

There are a number of state-specific collections of policy and economic tools that address the three primary issues associated with conversion of working waterfronts to non water-dependent uses. Among the best of these are sites that have been developed for Florida² and Maine.³ However, the bottomland management regime in the Great Lakes differs significantly from the salt coasts and these economic and policy tools will need to be "translated" to take into account the needs of the Great Lakes legal regime, especially in relation to the Public Trust Doctrine. The second component of the fellow's work will therefore be to: 1) identify and assess existing collections of economic and policy tools related to working waterfront protection; 2) where possible, translate those tools to reflect the legal regime under which the state of Michigan operates; and 3) identify particularly effective case studies from other states that are applicable to Michigan.

3) Evaluation and Use of the 2009 Michigan Waterfront Smart Growth module of the Smart Growth Readiness Assessment Tool in 10-20 coastal communities in Michigan

The Smart Growth Readiness Assessment Tool (SGRAT) is a set of online assessments for scoring how well a community is prepared to develop according to Smart Growth principles. The assessments provide communities with a baseline score, and can be used to measure progress. SGRAT also provides extensive resources for communities interested in growing smart, including case studies of Michigan communities successfully following Smart Growth principles. This tool is potentially very useful to apply to the communities that are identified as conversion "hot spots."

The Smart Growth Readiness Assessment Tool (SGRAT) was developed by the Land Policy Institute at Michigan State University for individual and collective communities to assess how smart they are growing.⁴ The SGRAT provides the community with an

² University of Florida Law Conservation Clinic: Waterways and Waterfronts (accessed 10-21-09) <http://www.law.ufl.edu/conservation/waterways/waterfronts/access.shtml>

³ Island Institute, Working Waterfronts pages (accessed 10-21-09) <http://www.islandinstitute.org/publications/The-Last-20-Miles/12189/>

⁴ Land Policy Institute (accessed 10-21-9) <http://www.landpolicy.msu.edu/sgrat/pages/about.html>

assessment tool as well as access to a considerable set of Smart Growth resources. In addition, professional assistance is available for communities that need it.

The Michigan Waterfront Smart Growth module is a module of SGRAT just developed in September, 2009 with funding from the Michigan Coastal Management Program. The Coastal Fellow will evaluate and apply the Waterfront SGRAT in 10-20 coastal communities across Michigan that are identified as conversion “hot spots.”

4) Conduct a census of Michigan's coastal dependent business

In order to develop a strategy to address the results of item 1 above, Michigan will require a census of coastal dependent businesses. This will be particularly important when developing strategies for conversion “hot spots,” as we anticipate that these areas will either have a large number of coastal dependent businesses that are rapidly converting or have a more limited number of coastal dependent businesses and a proportionately small amount of requisite public access. The census could be conducted at the same time that the 10-20 communities identified in item 3 above are assessed and used for the application of the SGRAT. This would be more efficient and eliminate overlap. Business census activities would include: 1) accessing existing censuses that might address specific business, e.g., marina surveys; 2) work with local experts, e.g, Michigan Sea Grant personnel, to identify the gaps in existing materials; and 3) do comprehensive surveys of a select number of coastal communities in order to develop an algorithm that will enable us to sample communities and/or business types rather than undertaking a comprehensive, community-by-community survey. Michigan's extensive coast makes such an undertaking prohibitive.

Goals and Objectives:

Goal 1: Identification and characterization baseline of Michigan working waterfronts (location, extent and use) and trend analysis to characterize an initial trend/rate of conversion to non-coastal dependent uses.

Measurable Objectives:

- a) By January 2011, develop methodology to quantify the amount of working waterfront in the state of Michigan and the rate at which working waterfronts are being converted to non-coastal dependent uses. Methodology needs to be: 1) resource efficient (time and money); and 2) comprehensive and/or reliably extrapolated from a scientifically selected sub-set to the entire coast line of the state.
- b) By March 2011, peer review of methods will be conducted by Michigan Sea Grant.
- c) By April 2011, peer review comments will be incorporated and methodology available to apply to Michigan coastal communities.
- d) By June 2011, working waterfront characterization and trend analysis methodology will be applied to Michigan coastal communities.
- e) By June 2011, draft report will be peer reviewed by Michigan Sea Grant.

- f) By July 2011, review comments will be incorporated and report will be ready for dissemination.

Goal 2: Identify and distribute a suite of policy and economic tools available to address working waterfront issues and reverse incentives to privatize Michigan's coastal assets.

Measurable Objectives:

- a) By January 2011, complete a literature review, interviews and select case studies identifying relevant policies and economic tools from within the state, Great Lakes region and around the country.
- b) By April 2011, peer review of draft report summarizing case studies, with findings and recommendations will be completed by Michigan Sea Grant.
- c) By May 2011, reviewer comments will be incorporated and report will be ready for dissemination.

Goal 3: Evaluate and apply the 2009 Michigan Waterfront Smart Growth module of the Smart Growth Readiness Assessment Tool in 10-20 coastal communities in Michigan.

Measurable Objectives:

- a) By June 2011, cross-walk conversion "hot spots" from goal one and data to identify a short-list of communities against which to apply the SGRAT.
- b) By September 2011, complete a draft application of the SGRAT, compile a draft report.
- c) By March 2012, work with the conversion "hot spot" communities and Michigan Sea Grant agents to identify biggest risk factors.
- d) By April 2012, in concert with the communities and Michigan Sea Grant staff, develop draft plans for addressing these risks.

Goal 4: Undertake a census of coastal dependent businesses in Michigan.

Measurable Objectives:

- a) By June 2011, select a sub-set of Michigan's communities (10-20) some of which have been identified in number 1 above a conversion "hot spots" as well as a series of communities that broadly represent the various "community types" in the state.
- b) By September 2011, in concert with activities in goal 3 above, the fellow will conduct a census of coastal business in identified communities.
- c) By April 2012 the fellow will develop a draft report that has been reviewed by key individuals, including Sea Grant agents.
- d) By June 2012, the final report will be available.

Milestones and Outcomes

Element	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
<i>Goal 1: Coastal Conversion Status and Trends</i>								

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a) Develop methods	X	X						
b) Peer Review Methods			X					
c) Apply methods			X					
d) Peer Review of Trend Analysis				X				
e) Finalize report				X				
f) Develop dissemination strategy for trend analysis and policy/economic tools (below)			X	X				
<i>Goal 2: Policy and Economic Tools</i>								
a) Literature Review		X						
b) Interviews		X						
c) Identification of case studies		X						
d) Peer review of draft document			X					
e) Finalize report and dissemination				X				
<i>Goal 3: Application of SGRAT</i>								
a) Cross-walk conversion hot spots				X				
b) Apply methods					X			
c) Work with community					X	X		
d) Help identify response							X	
<i>Goal 4: Census of Business</i>								
a) Community selection				X				
b) Census in the field					X	X		
c) Compile Results and Ground Truth						X	X	
d) Final Report								X
Professional Development								
a) Present/Attend Working Waterways	X							

and Waterfronts National Symposium on Water Access (Portland, ME, Sept 2011)								
b) Present/Attend CoastalZone 2011 (Chicago, IL July 2011)				X				
c) Present/Attend 2012 Coastal Society Meeting (June/July 2012)								X

Fellow Mentoring:

The Fellow will have a the opportunity to be mentored by a diverse group of professionals already engaged in Great Lakes Coastal policy, management, research and outreach.

Day to day direct supervision will be carried out by the Chief of the Michigan Coastal Management program of the MDEQ and her staff. The fellow will be housed at DEQ offices in Lansing MI. As a result, the fellow will be engaged in relevant activities of the program and will have the opportunity to interact through CZM field staff with coastal decision makers throughout the State. Additionally through MDEQ's Legislative Director/ Collaborative Coordinator/ Maritime Culture Advisor we will engage the Fellow in activities associated with the Michigan Port collaborative which is a coalition of coastal communities that have joined together to enhance the economic potential of great Lakes port communities.

Complementing the State DEQ mentors Michigan Sea Grant welcomes the opportunity to contribute to the fellows professional development. Through Michigan Sea grants Management team and its network of field educators the Fellow will be exposed to research and outreach efforts that engage coastal communities.

A broad spectrum of research and outreach is being undertaken throughout Michigan's coasts. The Fellow's engagement with these efforts will contribute to richness of his/her experience and professional development.

Host Agency: Michigan Coastal Management Program

Mentors: Catherine Cunningham Ballard,
Matt Smar
Carol Linteau, MDEQ Legislative Director, Maritime Culture Advisor,
and Michigan Port Collaborative Coordinator
Additional support from Ginny Berry, Coastal Management Program
Support staff

Support Host Agency: Michigan Sea Grant College Program
Mark Brederland (25 years experience)

Charles Pistis (32 years experience)
Jennifer Read (15 years experience)

Project Partners

There are many potential projects, programs and project partners with whom to engage a coastal management fellow. The following table provides a flavor of the range of experiences to which the fellow would be exposed.

Event	Partner	Frequency
Michigan Sea Grant Extension Working Waterfronts Conference	Sea Grant, Michigan Municipal League, Michigan Association of Planning	Annually – biennially
Lake Huron Integrated Assessment	MSU Extension, county economic development personnel, municipal and village officials, coastal business	Meetings approximately every two months
West Michigan Integrated Assessment on Siting of Coastal Wind Generating Facilities	Grand Valley State U, energy industry reps, West Michigan Environmental Council	Meetings approximately every two months
Michigan Clean Marina Program	Michigan Boating Industries Assoc., Sea Grant and state partners	
Port Cities Collaborative	Port communities from around the state, Sea Grant, state partners	Semi-annually to annually
Great Lakes Small Harbor Coalition	Small harbor communities from across the Great Lakes basin	annually

Cost Share Description:

The fellow will be a member of the Michigan Coastal Management Program staff and project team. The fellow will be provided with administrative, technical and clerical support. The fellow will be provided with a current Department-standard computer, standard and technical software, and communications equipment. Access to the Department's library, GIS data, and training opportunities will also be provided. While MDEQ receives federal funding through the federal CZM Grant for personnel and operating expenses, a non-federal match is required. This match is provided through State appropriations. These funds are directed to implementation of watershed protection, coastal programming and land use management. The level of State funding exceeds the required match for federal CZM awards. These non-federal State funds will also be directed to meet the cost share match in support of the fellow.

In addition to the required non-federal match, Michigan Sea Grant will provide travel funds for the fellow from either its federal grant from NOAA National Sea Grant College Program or state funds to support travel expenses for the Fellow to visit coastal communities in Michigan.